National Aeronautics and Space Administration.

Decommissioning News.

A newsletter to inform the public about NASA's Decommissioning Activities.

TWENTY-THIRD EDITION. OCTOBER 2007.

SAVE THE DATE: WEDNESDAY, OCTOBER 17.
Join Us for Our Annual Community Information Session.

On Wednesday, October 17 (7 p.m. - 9 p.m.), the NASA Plum Brook Station Reactor Facility Decommissioning Project holds its ninth annual Community Information Session, in the Sandusky High School Cafeteria (2130 Hayes Avenue). The Community Information Session (CIS) will feature the latest decommissioning information, through a series of displays staffed by Decommissioning Team members. NASA Program Manager Keith Peecook will also give a brief presentation.

This year's CIS will also include information on the exciting work planned for Plum Brook Station's active facilities. Tests in the Space Power Facility are planned on the Orion crew exploration vehicle, the eventual successor to the space shuttle. A video on NASA's plans for human space exploration will be shown, the Aero Bus - NASA Glenn's traveling educational exhibit - will be open and, as always, refreshments will be provided. Retirees who once operated the Reactor Facility will be on hand along with current NASA staff and members of the Decommissioning Community Workgroup. As part of NASA's commitment to science and education, we will be joined by the Mavericks, a team of students from the EHOVE Career Center, who will host arobotics display. The Mavericks won an award last spring at the FIRST (For Inspiration and Recognition of Science and Technology) Buckeye Robotics Competition, sponsored by NASA and several other organizations.

Sally Harrington, of NASA Glenn's Community and Media Relations Office, says "We invite families from Sandusky and nearby communities to join us." People may stay for the entire program or just stop by. The CIS will be preceded by a Workgroupmeeting (at 5:30 p.m.), which is also open to the public.

PROJECT UPDATE .The Progress Continues.

Throughout this year, NASA has made steady progress, accomplishing important Decommissioning Project goals. Last spring, subcontractor MOTA Corp. completed decontamination of concrete and steel in the Hot Cells, seven rooms where the results of reactor experiments were once analyzed. Building on this success this summer, subcontractor BSI completed cleaning and surveying more than 19,000 feet of embedded piping, pipes encased in concrete as much as 46 feet below grade in Reactor Facility buildings. BSI is now applying grouting - a cement-like mixture - to the pipes, to stabilize them, with completion anticipated by late fall.

In recent months, MOTA workers have been decontaminating the Hot Lab Building (where the Hot Cells were located), which included many former workshop and storage areas. MOTA also completed decontamination in Hot and Cold Pipe Tunnels. When the reactor was operational, the 250-foot-long Hot Pipe Tunnel contained vent and drain lines that ran from the Hot Cells to the Fan House, while the 900-foot-long Cold Pipe Tunnel held air and water lines running between several buildings. MOTA has also begun decontamination of the Fan House, which originally housed the Reactor Facility's ventilation and filtration systems, and is removing mastic (a wall and floor covering) that contains asbestos in the Reactor Building quadrants and canals. While most building surfaces cleaned had low levels of contamination, higher levels were found in the Hot Pipe Tunnel, where there was a deep crack in a concrete floor slab. MOTA workers removed seven inches of concrete from the slab, while continually surveying the underlying concrete until it met cleanup levels. They also drilled several "core bores" to confirm that the levels were low in subsoil underneath the concrete. In addition, workers from subcontractor Solar pumped more than 350 gallons of a grouting substance into the walls and subsoil to minimize any water seepage into the tunnel.

On August 31, NASA issued a draft Request for Proposals (RFP) for a Decontamination and Waste Disposal Contract, to address all the major, remaining project tasks. These include completing decontamination work throughout the Reactor Facility; shipping and disposing of all packaged low-level radioactive waste currently on site and that resulting from current andfuture cleanup work; and excavating, assaying (surveying) and disposing of Reactor Facility soil. Peecook added that the contract will also cover the cleanup of Pentolite Ditch (see our June 2007 edition). He had hoped to begin the ditch cleanup this summer, but changed plans due to scheduling and mobilization considerations. Peecook anticipates that a formal RFP will be ready later this fall, with the contract awarded this winter and workers in place next May.

In the coming months, NASA will complete decontamination in several buildings and remove the bioshield, a concrete and steel structure which once provided an extra layer of protection when the reactor was operational. "Working together, we have reached several project milestones," Peecook observed. "We will continue to build on this progress."

Daylight Again, in these photos above, (left) workers from MOTA Corp. removed concrete roof plugs from the sump alcove of the Hot Pipe Tunnel, (right) allowing sunlight into the tunnel for the first time in more than 45 years.

NASA RECEIVES NRC APPROVAL FOR FINAL STATUS SURVEY PLAN.

It was not a surprise, but welcome news nonetheless. NASA has received approval of its Final Status Survey (FSS) Plan from the U.S. Nuclear Regulatory Commission (NRC). On August 20, the NRC published in the Federal Register its intention to approve the FSS Plan, which sets forth how NASA will meet the Decommissioning Project's cleanup goals by the end of the project, enabling the NRC to terminate NASA's license. The NRC began a 30-day public comment period on August 20, indicating its intention to approve the plan. Decommissioning Program Manager Keith Peecook said NRC approval \represented "the keystone in our efforts to complete a safe and successful decommissioning." A team from subcontractor SAIC began what Peecook termed "swinging meters" in the Reactor Office and Lab Building (ROLB) last month, the official start of FSS field work. Over the next few months, he expects FSS work to be completed in the ROLB, Service Equipment Building and Cold Pipe Tunnel.

Take a Look at What We've Done This Year!

Hot Cell Cleanup.

This has been a year of great accomplishment for the Decommissioning Project, especially in areas relating to the decontamination of concrete and steel in Reactor Facility buildings and structures. According to NASA Decommissioning Program Manager Keith Peecook, "What we have accomplished this year is the result of some three years of preparation, productivity and - at times - patience." Here is a look at some on-site and off-site accomplishments over the past year.

This photo above shows the Hot Cells before decontamination work took place.

The photo above shows the roof of the Hot Cells 3-7,with a vacuum hose running the length of the roof. In the photo to the right, the concrete slabs that comprised the roof and divider wall of the cells have been removed.

This photo above shows the Hot Cell roof and walls partially removed. At the center of the photo is a stack of concrete slabs removed from the cells' roof and walls.

The photo above showes the concrete slabs were removed from the Hot Cells and cleaned to "free-release" levels for recycling. They are shown outdoors at the Reactor Facility, awaiting pickup by a NASA recycling subcontractor

Plum Brook Off-site Sampling.

NASA is close to completing a year-long effort, working with Sandusky subcontractor Haag Environmental. The hydrogeological consultants examined several areas, adjacent to Plum Brook and off-site of the NASA facility, where trace amounts of cesium from reactor operations in the 1960's may have traveled in subsequent years. They confirmed that no levels of cesium found represented any public health concern. Their efforts also helped identify what spot cleanup NASA may conduct in some off-site areas.

In October 2006 the photos above, Haag Environmental began extensive off-site sampling in East Sandusky Bay. In the photo to the left, three workers are shown on a boat in the bay, preparing to take a sample with an drilling device known as a Geoprobe. In the photo to the right, workers prepare to take a sample close to shore.

In the photo above, a worker from Haag Environmental stands next to a canoe in Putnam Marsh, in this photo from early this year. To his right, sunk into the water, is a steel pole known as a Vibracore, used for drilling and taking samples at the bottom of the marsh.

Embedded Piping Decontamination and Surveying

In June, workers from subcontractor BSI completed the decontamination and surveying of 19,300 feet of piping embedded in concrete in Reactor Facility buildings and grounds. They are currently filling the pipes with grout to stabilize them. Workers will then turn their attention to surveying and cleaning - or disposing of - 33,000 feet of piping buried in soil (but not concrete) throughout the Reactor Facility.

In the photo above, workers improvised a wheeled tool for cleaning and surveying water mains in the Reactor Building and Primary Pump House, the largest embedded piping.

In the photo, a worker from subcontractor BSI is shown holding a cable to which a radiation monitor and television camera were attached. He was surveying pipe conduits in the Hot Cells, some of the smallest embedded piping.

In the photo above, grout is being mixed for application to the embedded piping.

In the photo above, BSI worker prepares to apply grout to piping in Canal E.

Hot Pipe Tunnel

The success of the Hot Cell work provided a path forward for decontaminating floors, walls and roofs in other Reactor Facility buildings and structures. These included the Hot Pipe Tunnel. Workers used several kinds of equipment, including the Brokk, which resembles a small backhoe, to remove concrete two inches at a time. After using the machine, workers surveyed the underlying concrete to assure it met project cleanup levels. A deep crack in a Hot Pipe Tunnel floor slab required removing several more inches. In addition, workers pumped 340 gallons of grout into the soil behind the walls and below the floor to prevent groundwater intrusion.

In the photo above, the Hot Pipe Tunnel is shown early this summer, before decontamination of its walls, roof and floors. A string of temporary lights runs the length of the roof.

In the photo above, MOTA workers and the Brokk clean the crack in the Hot Pipe Tunnel floor slab.

In the photo above, workers from subcontractor Solar apply a grouting mix through a hose and into the soil below the floor of the Hot Pipe Tunnel. At the top center of the photo is a drill rig used to take "core bores" deep into the soil under the floor slab.

In the photo above, a MOTA worker checks on concrete in the Hot Pipe Tunnel floor and wall.

Decommissioning by the Numbers.

26,000 square feet of concrete decontaminated to project cleanup goals in 2007 (in the Hot Cells and Hot Pipe Tunnel).

19,300 feet of embedded piping cleaned and surveyed (work is complete).

625,000 pounds of concrete free-released (cleaned for recycling).

136,000 pounds of steel free-released.

912 samples of sediment and soil taken off-site near Plum Brook since fall 2006 (as of 9/17/07).

0 the number of off-site samples presenting a public health concern

NASA Continues Extensive Off-Site Sampling Program.

After analyzing data from the first round of off-site sampling, for trace levels of cesium resulting from former Reactor Facility operations, NASA decided to sample a few specific areas more extensively. The additional sampling by Sandusky-based consultants, Haag Environmental, began last month. Results of sampling done by Haag Environmental over the past year confirmed what NASA anticipated: no levels present any public health concern. NASA Decommissioning Project Manager Keith Peecook stated, "NASA is committed to protecting the health and safety of the public and the environment. The investment we've made is an example of our commitment."

Starting in September 2006, Haag scientists and staff have taken and analyzed more than 900 samples of sediment and soil from five geographical areas, with two others remaining. The areas sampled include sediment in groundwater wells, East Sandusky Bay, the mouth of Plum Brook, ponds near Plum Brook and a floodplain wetland. Hydrogeologist Bob Haag kept the public updated at meetings of NASA's Community Workgroup and the Sandusky City Commission. At a June Workgroup meeting, he reiterated that East Sandusky Bay and all areas were safe, and that the few samples found with elevated levels were well below any that would represent a health concern. He said, in some instances, elevated samples were in isolated marsh areas away from frequent human access, such that "we feel…it is prudent to leave the cesium where it is."

The current sampling is a second look at areas examined in 2005 and 2006, where NASA had taken more than 1,200 samples, some with the most elevated levels. Peecook said this additional effort "helps us determine how much spot cleanup we may need to do here." NASA shares sampling information with the U.S. Nuclear Regulatory Commission and the Ohio Department of Health, and will work with these agencies to determine what cleanup measures may be appropriate. NASA will publish a fact sheet on the results of all off-site sampling efforts this winter.

PLUM BROOK PEOPLE.

Maybe It's the Dunkommisioning Project.

Decommissioning Program Manager Keith Peecook (photo shown at left) joined other managers at the dunking tank during NASA Glenn's employee picnic in August. Keith and others sacrificed themselves for contributions to the Combined Federal Campaign, which is similar to the United Way.

They Call This Retirement?.

The Decommissioning Project's Employee of the Quarter Award was presented last spring to a team of retired NASA workers who once operated the Reactor Facility. The retirees have served as the project's institutional memory since its inception. Program Manager Keith Peecook said the team earned the award for its "extensive site and process knowledge, impressive initiative and commitment to seeing the job through." Photo above, pictured from left to right, are: Rafael Sanabria of NASA Glenn; retirees Mike Sudsina, Don Young and Dave Willinger; Tom Hartline of NASA Glenn and retirees Don Johnson and Jack Crooks.

In Memoriam: Starr Was a Star.

The NASA Plum Brook family and the people of Erie County lost a good friend, when Starr Truscott passed away on September 3. Starr worked for both NASA and its predecessor the National Advisory Committee for Aeronautics, at the Langley and Plum Brook facilities. He was one of Plum Brook's first hires in 1956 and was there when the Reactor Facility shut down in 1973. Starr was committed to improving Erie County's economy and environment. President of the Erie County Planning Commission from 1965 to 1967, Starr was also on the Board of Erie MetroParks from 1968 to 2001 and its first Chairman. Additionally, he was a fixture at monthly NASA retiree breakfasts. Thanks and farewell, Starr.